

### **ABSTRACT OF THE DISCLOSURE**

An authentication method for establishing a connection between devices that want to communicate data in a communication environment using communication specification such as Bluetooth is provided. In the authentication method, it is determined whether the authentication procedure for establishing a connection between devices that want to communicate data is performed as a unilateral authentication procedure or as a mutual authentication procedure, according to the condition of one of the two devices that can communicate data and receives an authentication request, and performing the authentication procedure. Therefore, the authentication method more reliably and precisely establishes a connection between devices that want to communicate data in a communication environment operating based on communication specifications such as Bluetooth.